



DEPARTMENT OF EDUCATION

[Docket No.: ED-2023-SCC-0006]

**Agency Information Collection Activities; Comment Request; Visual Representations for Proportional Reasoning: Impacts of a Teacher Professional Development Program for Multilingual Learners and Other Students**

**AGENCY:** Institute of Education Sciences (IES), Department of Education (ED).

**ACTION:** Notice.

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**SUMMARY:** In accordance with the Paperwork Reduction Act (PRA) of 1995, the Department is proposing a new information collection request (ICR).

**DATES:** Interested persons are invited to submit comments on or before [INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE *FEDERAL REGISTER*].

**ADDRESSES:** To access and review all the documents related to the information collection listed in this notice, please use <http://www.regulations.gov> by searching the Docket ID number ED-2023-SCC-0006. Comments submitted in response to this notice should be submitted electronically through the Federal eRulemaking Portal at <http://www.regulations.gov> by selecting the Docket ID number or via postal mail, commercial delivery, or hand delivery. If the [regulations.gov](http://www.regulations.gov) site is not available to the public for any reason, the Department will temporarily accept comments at [ICDocketMgr@ed.gov](mailto:ICDocketMgr@ed.gov). Please include the docket ID number and the title of the information collection request when requesting documents or submitting comments. Please note that comments submitted after the comment period will not be accepted. Written requests for information or comments submitted by postal mail or delivery should be addressed to the Manager of the Strategic Collections and Clearance

Governance and Strategy Division, U.S. Department of Education, 400 Maryland Ave, SW, LBJ, Room 6W203, Washington, D.C. 20202-8240.

**FOR FURTHER INFORMATION CONTACT:** For specific questions related to collection activities, please contact Janelle Sands, 202-245-6786.

**SUPPLEMENTARY INFORMATION:** The Department, in accordance with the Paperwork Reduction Act of 1995 (PRA) (44 U.S.C. 3506(c)(2)(A)), provides the general public and Federal agencies with an opportunity to comment on proposed, revised, and continuing collections of information. This helps the Department assess the impact of its information collection requirements and minimize the public's reporting burden. It also helps the public understand the Department's information collection requirements and provide the requested data in the desired format. The Department is soliciting comments on the proposed information collection request (ICR) that is described below. The Department is especially interested in public comment addressing the following issues: (1) is this collection necessary to the proper functions of the Department; (2) will this information be processed and used in a timely manner; (3) is the estimate of burden accurate; (4) how might the Department enhance the quality, utility, and clarity of the information to be collected; and (5) how might the Department minimize the burden of this collection on the respondents, including through the use of information technology. Please note that written comments received in response to this notice will be considered public records.

*Title of Collection:* Visual Representations for Proportional Reasoning: Impacts of a Teacher Professional Development Program for Multilingual Learners and Other Students.

*OMB Control Number:* 1850-NEW.

*Type of Review:* A new ICR.

*Respondents / Affected Public:* Individuals and households; State, local, and Tribal governments.

*Total Estimated Number of Annual Responses:* 36,784.

*Total Estimated Number of Annual Burden Hours:* 11,281.

*Abstract:* This submission is a request for approval of data collection activities that will be used to support the Northeast and Islands Regional Educational Laboratory (REL) Visual Representations for Proportional Reasoning: Impacts of a Teacher Professional Development Program for Multilingual Learners and Other Students. The study is being funded by the Institute of Education Sciences (IES) U.S. Department of Education and is being implemented by Education Development Center (EDC) and its subcontractor, American Institutes for Research (AIR). This submission requests approval to recruit schools for the study, and administer measures to teachers and students.

This study aims to contribute to the evidence base on professional development associated with improved student outcomes for multilingual learners (MLLs) in mathematics. The Visual Access to Mathematics Professional Development (VAM PD) leverages recent and rigorous evidence on the importance of visual representations (VRs) and integrates language and content to support MLLs in proportional reasoning.

Proportional reasoning content is a major emphasis in grade 7 math content standards in most U.S. states, and is fundamental to success in subsequent mathematics coursework.

Prior research has demonstrated positive impacts of the Visual Access to Mathematics Professional Development (VAM PD) on teacher outcomes (DePiper, et al., 2021b, Louie et al., 2022, DePiper et al., 2019 & DePiper, et al., 2021a). This study will fill the gap in information about how VAM PD impacts student outcomes. In the current study, we will collect pre- and post- data from both teachers and students to examine what impact the VAM PD has on student learning. Teachers in participating schools will be assigned randomly to either a treatment or control group. Both groups will complete (1) a measure

of mathematical content knowledge, (2) a measure of teacher ability to analyze student work, and (3) a brief survey/questionnaire about instructional practices in fall 2023 and again in spring 2024. Students taught by teachers in both conditions will complete (1) a measure of mathematical content knowledge, (2) three items related to VRs, and (3) a survey regarding attitudes toward mathematics. Data collected will be summarized and analyzed using multilevel modeling to understand the efficacy of the VAM PD on both teacher and student level outcomes.

**Dated:** January 12, 2023.

**Juliana Pearson,**

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*Strategic Collections and Clearance,*

*Governance and Strategy Division,*

*Office of Chief Data Officer,*

*Office of Planning, Evaluation and Policy Development.*

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